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AN  
INAUGURAL DISSERTATION  
ON THE  
PUERPERAL FEVER.

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ROYAL ACADEMY OF SCIENCES

OF THE CITY OF LONDON

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AN  
INAUGURAL DISSERTATION  
ON THE  
*PUERPERAL FEVER.*

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SUBMITTED TO THE PUBLIC EXAMINATION  
OF THE  
FACULTY OF PHYSIC,  
UNDER THE AUTHORITY OF THE  
TRUSTEES OF COLUMBIA COLLEGE,  
IN THE  
STATE OF NEW-YORK;  
WILLIAM SAMUEL JOHNSON, LL.D. President:  
FOR THE DEGREE OF  
*DOCTOR OF PHYSIC;*  
ON THE FIFTH DAY OF MAY, 1795.

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*By* TIMOTHY FLETCHER WETMORE,  
OF NEW-YORK.

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Satius sit anceps remedium experiri quam nullum.

Felix qui potuit rerum cognoscere causas.

Celsus.

Virg.

NEW-YORK:

PRINTED BY T. AND J. SWORDS,  
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—1795.—





TO THE

Honourable JOHN JAY, Esquire;

Chief Justice of the United States,

&c. &c. &c.

WILLIAM SAMUEL JOHNSON, LL. D.

President of Columbia College, &c.

AND

JOHN CHARLTON,

President of the Medical Society of the State of

New-York :

This Dissertation is *further* respectfully inscribed,

As a mark of regard and esteem,

For the attention shewn to their very much obliged

Friend and humble Servant,

The AUTHOR.

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## P R E F A C E.

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*AS this fever has been observed in all ages, and has been considered to be and actually is one of the most dangerous diseases incident to the fair sex; and, as many authors of eminence and great natural genius and erudition have bestowed much time in investigating it, with a view of determining the real cause, and rendering the method of cure more certain; and as its nature has remained to the present time a subject of much dispute and uncertainty; for neither Leake, Denman, Manning, Hulme, White, Kirkland, Butter, Young, Johnston, and other learned men before alluded to, have agreed on, nor fully determined the nature, cause and method of cure in this fatal disease:—It cannot, therefore, be expected that I should advance any thing new or definitive on the subject, (this being only a collegiate exercise) although I am induced to take a view of the same, as it is a disease that often perplexes Physicians, and deservedly demands their greatest attention. For this purpose I shall endeavour to collect and bring forward the most received opinions,*

*with some remarks thereon, in hopes, by so doing, I shall not only fulfil a collegiate duty, but excite the attention of some future candidate to this wide field for investigation, and to a subject of such importance to the welfare of the female sex.*

*The critical period at which this fever takes place, when febrile commotions are apt to be excited by various causes, and the equivocal symptoms which accompany it have afforded room for questioning whether it be a primary or secondary disease: some writers have considered it as proceeding entirely from inflammation of the intestines, uterus, &c. others have imagined it to be the consequence of an obstruction to the secretion of milk, while the greater number have been inclined (for reasons equally if not more plausible) to impute it to a suppression of the lochia. If this fever is examined attentively, according to its natural course, and independently of the accidental concomitant symptoms with which it is not essentially connected, it may safely be pronounced a primary disease of a particular type, and perhaps not the necessary consequence of any of the causes above mentioned.*

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A N

# INAUGURAL DISSERTATION

ON THE

## PUERPERAL FEVER.

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### HISTORY OF THE DISEASE.

ON the second or third day after delivery the symptoms of *Puerperal Fever* usually begin to shew themselves: they are not uniform but varied, for there have been instances where they have come on within twenty-four hours after birth, and others of their not appearing till the fourth or fifth day, and sometimes later, and even not until the twelfth day:\* it is commonly preceded by a violent rigor, producing a sense of constriction on the extreme parts of the body, followed by great debility,† languor, lassitude, nausea, and other symptoms not unlike those produced in the cold stage of intermittents, which is succeeded by heat: at this time the

\* Home.

† Leake.

the head is scarcely ever free from great pain, especially in the fore part and over the eyes. In its early stage it is attended with signs of inflammation—great pain is felt in the hypogastric region, in the back, hips and pubes especially, accompanied with heat and throbbing, which is afterwards extended more generally, and over the whole abdomen and its integuments, and produces the most exquisite sensibility, so that the patient cannot bear to be touched. In the mean time the pulse is small and slow, but afterwards becomes more quick, although sometimes, in plethoric patients, it is hard and full. These symptoms are generally the same from the beginning. The pulse, after some time, becomes more distinct, full and perceptible—the skin is generally hot and dry: a change in the quantity and quality of the *lochia* now takes place, with a troublesome *tenesmus*—the *urine* is voided with pain, small in quantity and high coloured, but not always the same: in the advanced stages of the disease it deposits a dark coloured sediment: sometimes the *lochia* undergoes no change, either in quantity or quality, but are dark coloured and foetid, and at other times they altogether disappear. The secretion of milk also undergoes similar changes: in some it is diminished in quantity—in others it continues natural through the whole course  
of

of the disease, and even to within a short time of death.

On the first attack of this fever, the patient is seized with a vomiting of *matter* similar to that in *cholera*, to which the disease bears a strong resemblance; and when this symptom takes place, and towards the fatal termination of the complaint, the vomiting somewhat resembles coffee grounds: but instead of this symptom, there is sometimes only a nausea, with a disagreeable taste in the mouth—the abdomen swells to a considerable size, and, as before observed, becomes susceptible of painful sensations on the slightest impression. If pressure is made between the stomach and umbilical region, the pain becomes intolerable, which is not the case when lower down.\* The *tongue* is generally dry, though sometimes moist and covered with a thick brownish fur, accompanied with great thirst, and in general has a better appearance in the beginning than most fevers—the function of *respiration* is performed with more or less difficulty soon after the commencement of the disease, attended at times with a sonorous noise. After a few days the symptoms of inflammation usually subside, and the disease acquires a typhoid complexion; the pain in the abdomen, difficulty

\* Leake.

ficulty of breathing, anxiety and oppression about the præcordia increase, which is succeeded by a bilious and putrid *diarrhœa* that sometimes evolves contagious miasm.\* This diarrhœa is sometimes, though not always, of a dangerous and obstinate nature, accompanying the disease through all its stages; and I am of opinion with the celebrated *Home*, that this affection is only symptomatic. Each motion to *stool* is preceded by a temporary increase of pain, which, on taking place (*i. e.* the stool) there is an alleviation of the same; the patient nauseates all kinds of food and drink, except those which are cold and of the acidelous kind. In consequence of putrid exhalations, the *teeth* become covered with a brown or blackish fordes; at length troublesome hiccough is produced, which greatly exasperates the pain of the abdomen, petechiæ, vibices, and sometimes a miliary eruption also appears, first on the neck and breasts, and afterwards spreads over the whole body, but which produces no mitigation of the disease. The patient, through the whole course of the complaint, is afflicted with a peculiar anxiety and dejection of spirits, which now becomes increased; the eyes no longer retain their usual brightness, but become more and more languid,

\* White.



languid, and are sunk in the head: if at any time the patient falls into a dose, and should continue so, for a length of time, she finds herself but little refreshed: during these *doses* the eyes remain open, the nostrils become enlarged, the face is commonly much flushed, the cheeks appear of a purplish red, and sometimes there is a circumscribed red spot on the same; the lips turn livid, the discharges of *urine* and *stool* become involuntary, and the partial sweats which now take place shew that death is at hand. About this time the *abdomen* is not only greatly swelled, but begins to change to a greenish or even blackish colour;\* the pains of which entirely cease a few hours before death, which, when it takes place, is at different periods of the fever, but most commonly from the seventh to the twelfth or fourteenth days, from which perhaps the miserable patient flatters herself with hopes of recovery; but *these* are ill-grounded, for very soon *subsultus tendinum*, *delirium*, and *hiccough* come on, and *death* speedily closes the scene.

Such, in general, is the course of the *Puerperal Fever*, the symptoms of which, however, may be often varied, (as I before observed) according to the constitution of the patient, season of the year, management

\* Tissot.

management of nurses, the degree of the disease, and its earlier or later invasion.

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## APPEARANCES ON DISSECTION.

FROM the appearances on *dissection* of those who have died of this disease, the causes of their death have been found very obscure; some relating, that by dissection the disease seemed to depend on inflammation,\* others that it was not.† From either of which opinions we cannot determine the real seat and nature of the disease. On making an incision into the abdomen, a very offensive air issues forth, followed by a very foetid humour, which is sometimes yellow; it is found in a fluid state in a greater or less quantity: the intestines are sometimes found ruptured, more or less inflamed, and at times proceeding to a suppuration and inclining to, or actually seized with gangrene.‡ But this does not appear to be the case, as observed by *Home*; for he asserts that the intestines are not only a little but universally inflamed: but if there is any distinct inflammation, it is in that part of the omentum which joins the intestines, for it has been observed to be particularly affected.§ The ovaria

are

\* Leake and Hulme.

† Leake and others.

‡ Young, &c.

§ Leake.

are sometimes found inflamed, and in an indurated and gangrenous state;\* the abdominal viscera are also found to be affected with inflammation and adhesions. There appears to be scarcely any change in the nature and condition of the uterus, although some have asserted it. The inflammation is never apparently absent in this disease; for even the *pleura* itself has not been found free from the same, as has been made more clearly to appear by the indefatigable and unerring anatomist *John Hunter*.

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### PREDISPONENT CAUSES.

IT evidently appears that the female system undergoes great changes during *gestation*, as the nausea, vomiting, swelling of the breasts, and every trifling circumstance affecting or disturbing the body in an unusual manner, and which more readily takes place during parturition, clearly shews. To prove that this disposition to irritation chiefly favours the production of this disease, it has been advanced,† that *pregnant* women acting as nurses to those who are lying-in, are never attacked with this complaint until after *parturition*; and hence

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\* Home and Med. Comm. vol. iv. and vii.

† Leake.

there is no room of doubting that pregnancy and parturition are among the principle causes which predispose to this fever.

The putrid appearances, however, which this disease so readily assumes, affords ground to suspect a vitiated state of the humours to be the *predisponent* cause; for it is generally observed to be most prevalent in unhealthy persons, and among women of weakly and scorbutic constitutions.

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### EXCITING CAUSES.

THESE are many and various; the principal and most remarkable *during pregnancy*, appear to be the intemperate use of spirituous liquors, too great fatigue, or total want of exercise, too high or too low living, costiveness or the reverse, excess of joy or grief, a moist and warm atmosphere, impregnated with putrid effluvia. In *lying-in*, an overheated and confined air, by breathing in a chamber that is not sufficiently ventilated, costiveness, too warm a regimen, obstructed perspiration, violence and too great haste in separating the placenta, the abdomen being too much constricted by bandages, with the officious interference of midwives, every thing which produces a plethoric diathesis, the too  
soon

soon and too frequent use of animal food, *spirituous liquors*,\* and other cordials. On the other hand, the exciting causes of this disease may be the too long confinement of the woman to her bed, contagion, or putrid effluvia, which is so often generated in hospitals and elsewhere, with every thing which contributes to produce fever, (other circumstances being favourable;) excessive evacuations, especially hæmorrhages; and finally, the absorption of acrid, bilious or putrid *matter* from the alimentary canal, uterus or vagina: these causes being sufficient to produce such a condition in the body as, united with the predisponent ones, will produce the disease.

To these may be added the various emotions of the mind, as sudden frights, &c. for all these (especially if the woman be predisposed to the disease) may deservedly be reckoned among the *exciting* causes. This disease may also be produced by certain changes in the atmosphere, which elude our researches, and cannot be detected; for, if prevailing as an epidemic, it acquires new strength, and becomes

\* A remarkable case occurred in the month of January last, in a healthy woman, aged twenty-eight years, who was put to bed of her second child, the labour perfectly natural, and strength but little diminished; she was directed by her midwife in the free use of gin, (the weather being cold,) of which she took several pints. The excitement was so great as to produce indirect debility, typhus fever, and death. The colic state in which she was suffered to remain, might alone have produced FEVER without the aid of spirituous liquors.

comes more mortal. It is more frequent in hospitals than other places, and is more fatal in the former than in the latter.

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## PROXIMATE CAUSE.

I HERE feel and must confess my inability to produce a sufficient explanation of the real nature and cause of this disease, which will be in any manner satisfactory; I shall, however, take a concise view of the most plausible opinions, as delivered by the most approved authors, and endeavour to examine them attentively, according to their respective merits, with some inferences therefrom. The opinions concerning the immediate cause of this disease may be reduced to three heads:

- I. The suppression and retention of the lochia.
- II. A transfusion of the milk.
- III. An inflammation of the intestines and omentum.

Most fluids, after being retained a long time in their respective vessels, receptacles or excretory ducts, become acrid; it was supposed, therefore, that the lochia and milk, (for similar reasons) when long retained, might be the proximate cause of this fever; but I am inclined to think that this  
seldom



feldom happens, for we find that it comes on much sooner from such a change first taking place in the lochia and milk; and moreover, it has often arisen when there was not a sufficient cause (if we may reason from these data) to expect its attack. That the lochia does not always nor at fixed periods flow, we have already shewn in the history of the disease; for at one time they do not vary in quantity or quality, but continue a sufficient time, and are of a good kind: at another time they are sparing and of a putrid nature; and oftentimes, when the disease has advanced, they are almost suppressed; therefore it remains, without admitting a doubt, that this alone can by no means be a sufficient cause to produce this fever. Nor does it appear more reasonable to ascribe the cause of this disease to a transfusion of the milk, for whether there be a transfusion or not, the occurrence of the disease is much the same. Nor does it more clearly appear that the inflammation of the intestines and omentum is the proximate cause of this disease: however, this opinion ought not equally with the others to be rejected: those especially who favour this latter opinion contend that the uterus, after birth, is somewhat inclined to be contracted; from whence they have formed their opinion, to wit, that *that* organ

organ inclines to regain its former figure and original state, because the blood is not poured into it any longer in so great a quantity as it was before, and which was requisite in a state of *gestation*. Hence, say they, the blood being determined to another part, rushes into those vessels which make the least resistance, to wit, those of the *omentum* and *intestines*, by which they suffer a preternatural distention; and this distention or congestion (in the opinion of some) is thought to be the origin of this disease: but, at the time of gestation being gone through, and the birth at hand, the omentum has been found wounded when nothing like this disease has followed. From hence it is proved, that puerperal fever is not always the consequence of a wound in the omentum.\*

It cannot be denied that this fever has followed great discharges from the womb, which sometimes happen after parturition: this being the case, it can scarcely be supposed that the vessels of the omentum can then be so much distended by blood as to be productive of this fever. And if it is allowed that the contractile force which the uterus possesses is greater in the first pregnancies than those which follow, (for, in fact, the sudden contraction of  
the

\* White, p. 412.



the uterus with the very small, if any, pains which are apt to follow the first parturition, seem to favour the opinion,) is not this fever then more to be expected in those who ly-in of their first children? Why is there not danger also that this fever may follow the operation of the paracentesis?

Among all it is agreed, that the symptoms manifested in this disease (producing death) are the same which take place in putrid fevers :\* and hence it may be concluded, that nothing determinate can be collected as to the real seat and nature of the disease. Sometimes, in various parts of the body, there seems to be a *certain something* deposited, which produces, as it were, a crisis; and from hence all the symptoms have manifestly grown milder: but examples of this kind are rare, nor does the disease always cease on such a deposition.

Upon a comparative view of these opinions, I think the one of congestion in the blood vessels of the omentum and intestines producing inflammation in these parts, is too fanciful and too much favouring hypothesis to have much faith placed in it: for it is not sufficiently supported, nor do dissections prove the same.

That kind of *erysipelas* which is apt to appear  
on

\* Sir John Pringle, Cleghorn and Lind.

on the decline of this fever, ought to be considered as *symptomatic* only.

To me it does not seem improper to class the *puerperal* fever among those diseases to which Dr. Cullen has given the name of *synochus*; for this disease, as far as I am able to judge, does not differ from *synochus*, except in its attacking lying-in women. That this opinion is not far from being right, the attack, progress and termination of the fever prove; for, generally, in the beginning it is attended with such manifest symptoms of inflammation as to resemble *synocha*, and then evidently requires blood-letting; but in the course of one or two days marks of *asthenia* appear over the whole body, and then the disease resembles *typhus*.

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## DIAGNOSIS.

THIS disease is known by pyrexia, accompanied with great inquietude and violent acute pains of the abdomen below the stomach; for on pressure being made between it and the umbilical region, the soreness is so great as not to bear the gentlest touch. These pains may be distinguished from those called *after-pains*, by their uninterrupted continuance through the whole course of the disease, though

though sometimes they suffer exacerbations; whereas, in the latter, they often wholly intermit. It is known by a dread in taking a full inspiration, which causes much uneasiness; by the respiration being quick and short, the lungs themselves not appearing affected, this difficulty increasing with the disease; by flatulencies, costiveness or the reverse.

This fever may be distinguished from the *miliary* by the rigor attending it being more violent, of longer duration, and not interrupted; the pulse is fuller and stronger, the skin more hot and freer from that itching sensation which is felt in the *miliary* fever; nor do the eruptions in the puerperal produce a crisis as they generally do in the *miliary* fever; and the tongue, whether moist or dry, (though generally the latter) is not of a white but brownish appearance; the urine is also higher coloured. The abdomen in the beginning of the puerperal is almost always constipated, which gives another mean of distinguishing the disease.

In the *hysteritis*, a disease that favours the puerperal, the pain is only felt in the uterus and about the private-parts; but in the puerperal fever the pains are felt in the stomach and intestines: nor is the patient affected in the beginning of this disease

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with

with violent delirium; neither is the os uteri so painful when touched as in hysteritis.

To distinguish the puerperal fever from *enteritis*, the pain is observed to be more external, nor does it affect the umbilical region only; neither are the bowels so obstinately constipated as in that disease.

When the original attack of this fever happens to coincide with febrile commotions, excited in child-bed women by the secretion of milk, the nature of it may at first be misapprehended; but the concomitant symptoms and great violence of the disease will, in a short time, dissipate such an error. In the milk fever the breasts are usually tumified, but in the puerperal they commonly are not; nor are those pains which are frequently felt shooting from the breasts to the arms, and back again, in the milk fever, felt in the puerperal.

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### PROGNOSIS.

WHEN the patient is naturally weak, her strength greatly reduced by immoderate evacuations after parturition, and when the disease is violent, and immediately follows delivery, its progress and termination are proportionably rapid and fatal: in these unfortunate circumstances many have expired within

within twenty-four hours from the first attack of the disease; and there have been some instances where the *rigor* has closed the scene: however, the catastrophe is generally suspended for a few days; but, for the most part, somewhere between the fifth and eleventh, from the commencement, may be fixed on as the decisive period; but if it should be protracted beyond the eleventh day, there will be more hopes of a recovery, although it sometimes happens otherwise. The most favourable symptoms are a gentle *diarrhœa*, which renders the pains less acute; the *urine* depositing a dark coloured sediment, and especially if the lochia begin again to flow, after being somewhat suppressed, together with the secretion of milk being again renewed. If there is also a gradual diminution of the swelling, pain, and foreness in the abdomen, and if after the bowels have been opened there is a gentle diaphoresis diffused over the whole body, and if the vomiting, anorexia, and other febrile symptoms begin to disappear; there will be reason to hope a favourable termination of the disease. But if, on the other hand, the swelling of the abdomen does not subside on the commencement of the *diarrhœa*; if the respiration is also attended with a sense of anxiety and stricture in the thorax;

if

if the strength is very much reduced, and at the same time *petechiæ* appear, and the excrements are black and fœtid, it is evident the patient is in imminent danger:—if the pains in the abdomen entirely cease, the pulses become so very small and frequent, that they cannot be numbered; if involuntary discharges of the fœces by stool; if a greenish or blackish *matter* is ejected by vomiting; viscid cold sweats affect the extremities, and there is a livid appearance on the cheeks—*death* is near at hand.

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## PROPHYLAXIS.

WOMEN, during the time of gestation, are too apt to neglect the keeping their bowels open: although this has been considered a matter of no importance, it is, however, often attended with dangerous consequences, and renders the diseases to which they are liable in their lyings-in much more severe and obstinate than they would otherwise be if costiveness were prevented. To obviate this complaint, the cautious use of such remedies as are best suited to the situation of these women, must be had recourse to, such as clysters, gentle laxatives, and that kind of diet which tends to keep the bowels open, such as vegetables and ripe fruits.

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An indolent, sedentary life not only occasions the bowels to remain in a costive state, but may be considered as predisposing to this disease; women should, therefore, take gentle exercise, in the open air, as often as the weather will permit; they ought to avoid all such emotions of the mind as greatly disturb and agitate their systems, by devoting some part of their time to agreeable company, and by pursuing such means as will tend to promote cheerfulness: their diet should be light, nourishing, and easy of digestion; their cloathing should set easy, and be such as they have been accustomed to, and that will keep them moderately warm. If they are troubled with nausea, vomiting, hysteria, and the want of sleep, opium will afford relief, if cautiously administered; but if, notwithstanding, the irritability of their systems becomes increased, recourse must be had to the Peruvian bark, mild calybeates, and other tonics. The frequent use of the cold bath during gestation has sometimes been attended with the happiest effects; and it appears that the same treatment (if nothing forbids) is essential in removing that propensity to diseases which is generally present in parturition; and further, every means must be used that will tend to obviate a plethoric state of the system. After parturition, every  
measure

measure must still be had recourse to, that will secure the safety of the patient; therefore, all irritating causes must be avoided, cheerfulness promoted, and both body and mind kept perfectly quiet, that the patient may, for a few hours, enjoy Nature's sweet restorer, "balmy sleep." Nor is it of little moment that the bed-room should be kept as clean and neat as possible; the regimen should be of a cooling, vegetable kind, and such as will not overload the stomach; cool drinks, and other liquids of the acidulous and antiseptic kinds may be freely used. The bowels, at this time, must be well attended to, that they be kept open by clysters and gentle laxatives. Every principal cause of disturbance must be avoided, such as violent emotions of the mind, with the rash admittance of cold air to the body; cleanliness must be well attended to, for if it is not, contagion\* may be produced, which has been thought,

\* It may be suspected that contagious matter is much oftener produced, and in a greater variety of diseases than is commonly imagined—that is, a MATTER is generated or secreted in vessels MORBIDLY ACTIVE, which, when applied to other vessels, even in a sound body, tends to excite in them a similar action to that which originated itself. Hence cleanliness is necessary in all diseases; not because the want of it produces the contagious matter, but because it prevents an effective CONCENTRATION of it. The general principle of this contagious operation is in analogy with an infinitude of phenomena in the human body depending upon this general law in the system—THAT THE FLUIDS IN CERTAIN VESSELS ARE AT ONCE THE PRODUCT OF THOSE VESSELS, AND THE APPROPRIATE STIMULI TO THEIR FURTHER ACTION.

Professor Smith's M. S. Lectures.



thought, in every instance, the cause of puerperal fever;\* therefore, a free ventilation of the lying-in room is highly necessary; nor is the officious interference of ignorant visitants to be permitted; neither is too rigid a treatment necessary; for in things of an indifferent nature we may indulge our patients. Every lying-in woman is to be treated with the greatest attention and the most soothing indulgence, and whatever will render her pains more easy, should most readily be granted; every degree of violence should be carefully avoided; and, therefore, the practice of tearing away the *placenta* cannot be too highly condemned, for it is not only a cruel but hazardous expedient, and at this day is generally condemned by the best practitioners, and should not be had recourse to but in extreme danger from floodings, &c.† The effect of opiates, gentle compression of the abdomen, and afterwards increasing it, ought first to be tried. If the patient is exposed to contagion, every means should be carefully used that tend to lessen and moderate its violence, or, if possible, to render it inert. Frequent change of linen and air, the Peruvian bark, mild calybeates, gentle exercise, and that kind of diet which will give strength and vigor to the system, are to be used.

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\* Young.

† Mauriceau, &c.

It is also necessary that every thing relative to parturition should be conducted in the most simple manner; the breasts should be drawn in due season; the abdomen kept free from constipation; the bedroom must be well aired as before mentioned; the diet light and sparing; the drinks cooling and acidulous, and all kinds of spirituous liquors and cordials carefully avoided, unless great debility has already taken place; for by observing this mode of treatment in lying-in women, the disease (if it has commenced) will not only be rendered more mild, but many things may be avoided that might otherwise be injurious, were the disease to take place.

If the lochia should flow in too great quantities, the infusion of bark and tinct. rosar. with as much elix. vitriol. as will make it agreeable, may be had recourse to, together with absolute rest in the horizontal position. But if the lochia have been long retained, and there is reason to suspect they have become acrid, it may not be amiss to inject something emollient and antiseptic into the uterus. These are the most general means of preventing this dangerous and often fatal disease. I shall now proceed to the

## METHOD OF CURE.

NO disease has more divided the sentiments of Physicians, in regard to the method of cure, than that of the *puerperal fever*. The apparent indications and contra-indications of bleeding, and other remedies arising from the complication of inflammatory and typhus symptoms, the equivocal appearances of the vomiting and purging, whether they be critical or symptomatic, and the different causes whence symptoms similar to each other may arise in pregnant women; all these circumstances concur to involve the subject in great obscurity and indecision: however, if we carefully attend to the several characteristics of this disease, so as to be able to distinguish it from every other puerperal complaint, and observe at the same time the usual manner of its declination, our judgments may in some measure be guided in the method of cure by the salutary efforts of nature.

The method of cure which appears the most proper to me, may be described under two general indications.

- I. To diminish or take off the sthenic diathesis.
- II. To obviate the debility and putrescency which follow, and at the same time to moderate all troublesome symptoms.

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To answer the first intention, immediate recourse must be had to the sedative plan and regimen; a principal mean in which is blood-letting: but of its utility in this disease there appears nothing certain in the writings of Physicians; some contending that venesection is proper, others that it is useless and hazardous; but there have been some instances of critical hæmorrhages, which would seem to confirm its utility. Dr. *Denman* thinks it may safely be affirmed from experience, that for one who will be benefited by large bleeding, a much greater number will be injured thereby, and that even almost irretrievably. Nor can this seem surprising when we consider the situation of women in child-bed: the evacuations consequent upon delivery are usually sufficient to diminish any undue superabundance of the fluids; and if, as frequently happens, the disease be produced by too hasty a separation of the placenta, the consequence of which is generally a very copious discharge of blood, we can never suppose that nature will be assisted in overcoming the febrile commotions, by the further evacuation of the *vital fluid*, through the defect of which she is now rendered unequal even to the ordinary support of the animal œconomy; and every practical Physician must know how much the pulse sinks, and what a train  
of

of nervous symptoms is observed to succeed an excess of the discharge above-mentioned: and, moreover, it is an axiom in physic, that a remedy which cures any disorder, will always prove sufficient to prevent it; and therefore, if bleeding were the proper cure in the puerperal fever, the disease ought to have been prevented by a large evacuation of blood when that happened previous to its seizure. Experience, however, in this as in all other diseases, is the only unerring guide we can follow; and whoever regulates his practice by facts and observation, will be convinced that venesection, especially in a large quantity, is in general very far from being attended with success; and, for my own part, I think it will seldom if ever be proper, unless in women of active, robust and plethoric habits, and in whom sometimes the symptoms of inflammation run high, and even in such persons, it is not to be repeated but with the greatest caution, and when the symptoms are most urgent: Bleeding, when used in proper circumstances, may palliate the fever; but that it often shortens the duration of it, appears to be a matter of much doubt: on this account the practice becomes still more suspicious and exceptionable, when we consider that by venesection being improperly used, the patient's strength may be so far reduced as not

to

to support the tedious diarrhœa by which the disease is generally removed.

Whenever blood is to be drawn, it ought to be taken away at the commencement of the disorder, and the bleeding should not be in large quantities, lest a dangerous state of debility be induced thereby; for it is worthy of remark, that whenever fevers incline to great debility, we are to avoid favouring it, by copious blood-letting.\* Upon the whole, this evacuation promises very little advantage; and it has been asserted by some, that the disease is never mitigated by it—that the pulses become lower after bleeding, although the blood be covered with a buffy coat; therefore, particular attention must be paid to the state of the symptoms before we make use of this remedy, and especially to that of the pulse. Nor is the duration of the complaint to be neglected, for this and many other circumstances must be attended to before the lancet is used.

The state of the bowels is next to be attended to, and if they require opening, it must be done either by clysters or laxative medicines, such as the neutral salts, or the oleum ricini; which must be repeated till a free discharge from the bowels is obtained; for stools must at all events be procured, as



on these at first are founded our greatest hopes of success; for, by emptying the first passages, all distension from the contained fœces is taken off, flatulence lessened, irritation from the fœces avoided, and some degree of freedom is given to the circulating fluids of the parts affected: but this must be done in the most gentle manner, and by such medicines as will not create sickness, as the saline purges or emulsion of castor oil. The first evacuations are generally fœtid; but, if afterwards they become less offensive, and the patient feels herself generally relieved, she commonly falls into a sleep, which is succeeded by a gentle perspiration. Whatever promotes this perspiration (which ought not to be profuse or kept up by such medicines as may either produce costiveness or heat the system) should be administered; the most proper are the ipecacuanha, tartar emetic, or antimonial wine, in small doses, every second or third hour, with the addition of opium, and in the intervals the saline mixtures will be found advantageous: these alleviate pain, determine the fluids externally, are in a degree diuretic and antiseptic, and this without astringency or sanguiferous stimulation. A determination to the skin may also be solicited by small and repeated doses of lukewarm diluents, as vinegar whey, lemonade, toast and  
water,

water, a slight infusion of malt, or things of a similar nature.

Stimulants, and the heating regimen, although they may be used for the purpose of rendering the cold stage shorter, are very improper and injurious, and ought therefore to be rejected, especially those medicines which are called *emmenagogue*.

The *vis vitæ* is to be supported as much in this as in any typhus fever; cool air is, therefore, of service, and cleanliness, as before noted, must especially be attended to; for which purpose the bed-clothes and body linen should be frequently changed. If the vomiting should be troublesome, and such as seems to arise from a superabundance of bile, mild emetics and laxatives have been recommended to restrain it:\* and if the symptoms of inflammation are not present, a small quantity of opium may be given as soon as the vomiting will permit, to prevent further stimulus; for if the vomiting is not restrained, or its violence lessened, disagreeable consequences may ensue from the straining, &c. by the protrusion of the womb, the ligaments of which are now in a relaxed state. The most proper drinks are those  
which

\* In the Hotel Dieu, at Paris, six or eight grains of Ipecacuanha exhibited early, and repeated twice a day as long as necessary, have been, it is said, attended with remarkable success.

Macbride and Lind have observed, that vomiting is very serviceable in all fevers arising from contagion.



which are mild, refrigerant and diluent; but the use of all spirituous and fermented liquors must be prohibited during the first or inflammatory stage of the disease.

If, in pursuing this mode of treatment, there appears to be a change for the better, we must next attend to the state of the intestines, and endeavour to restore their tone and vigor. A free admission of cool air, with the use of the bark, and exercise in fair weather, will generally be sufficient to remove any remaining indisposition. But, on the other hand, if the disease does not remit, but appears to increase, and becomes more violent, verging to putridity, recourse must be had to our second indication, which is to obviate the debility and putridity about to take place.

Of all the symptoms usually connected in this stage of the disease, the most remarkable and troublesome is that of diarrhœa, which, in the beginning of the complaint, is not injurious, and ought rather to be promoted than checked; but if immoderate, it should be somewhat restrained by clysters,\* with opium, and such medicines as have a gentle restraining operation; the Japonic confection is  
useful

\* Which should be emollient, diluting and nutritious, composed of broths, beef-tea, cammomile infusion with oil, and impregnated with fixed air or yeast.

useful at this time; the method of treatment just described must especially be used. If the strength of the patient should be greatly reduced by the diarrhœa, it is *cautiously* to be checked, as it oftentimes proves critical and salutary.\* By correcting the state of the fluids, we may render the irritating cause in the intestines less active, by which those profuse evacuations become restrained.

Epispastics have been said to be of service in this disease, when employed after venesection; but it is probable they can be of no other service in this fever than by removing topical pain.

Although spirituous liquors and a generous diet are injurious in the commencement of this disease, they now become very necessary. Wine and water, cinnamon water, and other cordials may also be given. Besides these remedies, the Peruvian bark and columbo-root, either alone or joined with aromatics and opiates, may be employed, which, in relieving this disease, have been very much extolled, and deservedly so, although they sometimes fail. If the diarrhœa should yet continue, still more powerful astringents seem to be indicated, such  
as

\* When the diarrhœa becomes critical and seems to be the means of freeing the system from puerperal fever, may we not suspect an analogy in the state of the vessels of the intestines with that of the *υμετερα*, in those cases of mild gonorrhœa where the disease goes off spontaneously?

as the hæmatoxylum, kino, and others of this sort. —Can we expect any advantage from the cold bath, applied either by the sponge or in form of a shower, or applied in any other way when great debility prevails? An application like this is certainly worthy of attention, as it has been thought of service in the cure of typhus fever,\* and I am informed, is the common practice at Vienna and some parts of the West-Indies.

It is further to be observed, that the success in the means used for the removal of this disease, depends principally upon the immediate, early and constant use of the remedies before mentioned, for we must have recourse to them even before any remission has appeared, as shortly after the disease rejects assistance from all medicines, and speedily terminates in death. Hence, whenever the vomiting becomes very violent and appears to aggravate the other symptoms, we must have immediate recourse to the saline draughts; and if these should afford no relief, the infusion of columbo-root and liquid laudanum must be tried: and whether the saline draughts are of service or not, we must make use of the last mentioned remedies, for from these we may expect relief with some degree of certainty.

F

To

\* Gregory.

To relieve the pains of the abdomen, emollient cataplasms or fomentations are generally used with success; but if they should fail of affording relief, epispastics, the rubifacients, camphor and opium will not be used in vain.

To obviate or remove the *dyspnoea*, epispastics, applied between the shoulders, are always of service, as also the spermacæti mixture.

It is, after all, very evident, that the nature of the puerperal fever, and much more the method of treating it, are not well understood.

To what has been said we may add, that the patient recovering from this disease should be treated as a convalescent from any other fever; and if she should not be quickly restored to health, the cold bath and various other tonics may become necessary.

F I N I S.

## ERRATA:

Page 21, line 6, for 'does,' read 'do.'

Page 25, line 18, for 'abdomen,' read 'bowels.'



Med. Hist.

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